federal register

Wednesday
October 8, 1980

Part II

Environmental Protection Agency

Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Submission of Altitude Performance Adjustments for Motor Vehicles

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 86

[AMS-FRL 1619-5a; Docket No. A-79-42]

Control of Air Pollution From New Motor Vehicle and New Motor Vehicle Engines; Submission of Altitude Performance Adjustments for Motor Vehicles

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rules.

SUMMARY: This action establishes a final rule the requirements for manufacturers of motor vehicles and motor vehicle engines to provide to the Administrator altitude performance adjustment instructions. This action is intended to improve the emission control performance of vehicles operated at an altitude other than the altitude for which they were originally certified. These requirements are applicable to all motor vehicles and motor vehicle engines to which Title II of the Clean Air Act applies. Section 215 of the Clean Air Act as amended in 1977 provides the authority for this action. This action was published as a Notice of Proposed Rulemaking (NPRM) on Thursday, January 24, 1980. The NPRM proposed the criteria which the Administrator would use to judge the acceptability of altitude performance adjustments and administrative procedures for the approval of these adjustments.

EFFECTIVE DATE: This final rule will become effective on November 7, 1980.

ADDRESSES: Material relevant to this final rule are available from the U.S. Environmental Protection Agengy, Central Docket Section (A-130), Attn: A-79-42, Waterside Mall, Room 2903B (EPA Library), 401 M Street SW., Washington, D.C. 20460.

FOR FURTHER INFORMATION CONTACT: William R. Wright, Certification Division, Environmental Protection Agency, 2565 Plymouth Road, Ann Arbor, Michigan 48105, 313-668-4328.

SUPPLEMENTARY INFORMATION: These regulations will require that within one year of the effective date manufacturers of 1981 and earlier model year motor vehicles and motor vehicle engines shall submit to the Administrator altitude adjustment instructions for in-use motor vehicles and motor vehicle engines. For 1982 and later model year motor vehicles and motor vehicles engines, manufacturers are required to submit to the Administrator altitutde performance adjustment instructions for new motor vehicles and motor vehicle engines within 30 days from the date on which a certificate of conformity is issued by EPA. Section 215 of the Act mandates this action and establishes the authority to require manufacturers to submit to the Administrator instructions for the adjustment or modification of vehicles being operated at elevations other than the altitude for which the vehicle was originally designed. Section 215 also requires that EPA establish regulations to require these submissions. Pursuant to Section 215(a)(1) EPA will not consider adjustments or modifications (hereafter "adjustments") made to vehicles in accordance with instructions (approved under these regulations) as being in violation of the tampering provisions of Section 203(a)(3) of the Act. Although Section 215 does not require specific emission reductions to be achieved as a result of the adjustments, EPA believes the intent of Congress when it enacted Section 215 was to bring about a reduction in emissions from in-use motor vehicles.

Light-duty vehicles (LDV's) and light-duty trucks (LDT's) that are not designed for operation at high altitude (over 4,000 feet above sea level) emit significantly more hydrocarbons (HC) and carbon monoxide (CO) per mile at high altitude than at low altitude. For the 1977 model year, EPA regulations required that manufacturers of LDV's sold at high altitude certify those vehicles to meet emission standards at high altitude. These regulations were revoked for 1978 and later model years by the 1977 Clean Air Act Amendments. As a result of that congressional action, vehicles that comply with only emission standards at low altitude may now be legally sold at high altitude. This proposed regulation will provide procedures for manufacturers to provide instructions to adjust these in-use vehicles in order to reduce vehicle emissions at high altitude.

As required by Section 215(b)(3), this proposed regulation will also require instructions to adjust for low-altitude operation in-use vehicles that are designed for operation only at high altitude. These vehicles may not perform acceptably at low altitude and may emit more pollutants if not adjusted for low-altitude use.

Air quality improvements resulting from this regulatory action will depend on how many vehicles are adjusted in practice. Inspection and maintenance (I/M) programs in the affected areas would provide the greatest incentive to the vehicle owner to have the adjustments performed. Recent data collected in Denver show that 95 percent of the vehicles sampled had incorrect adjustments.[1] We assume that many of these adjustments to other-than-recommended specifications were deliberately performed to improve vehicle performance at high altitude. Thus, even without I/M, vehicle owners may have sufficient incentive to have their vehicles adjusted to compensate for high-altitude operating conditions. However, the possibility of improved drivability may not be adequate incentive if the costs of adjustments are unreasonable.

Section 215(d) prohibits high-altitude performance adjustments after December 31, 1980 in any states which have a nonattainment area where an I/M program is required, but which have not implemented an I/M program. This may provide states with added incentives to implement I/M programs. EPA anticipates that nearly all high-altitude states will meet the December 31, 1980 deadline.

Comments Received

Comments in response to the Notice of Proposed Rulemaking (NPRM) were received from the regulated industry, elected officials at both the State and Federal level, public service groups, and the general public. The EPA staff has summarized and responded to the comments in a document called "Summary and Analysis of Comments" that is now available through the Central Docket Section, Public Docket NO. (see Addresses, above). Comments from the public expressed a definite perceived need for an effort to improve vehicle performance, and to improve ambient air quality, in high altitude areas. Comments from industry were mixed; and although few manufacturers questioned the intent of this rulemaking, portions of the proposed were strongly criticized. Those aspects of the NPRM which were changed in response to the comments follows.

Cost Restrictions

In the development of the NPRM, EPA was concerned with maximizing the voluntary owner use of high-altitude performance adjustments so that the maximum benefit in improved vehicle emission performance could be realized. EPA believed that if the cost to the customer of the altitude performance adjustments was too high in relation to driver-perceived benefits (e.g., driveability and fuel economy), the air quality benefits might not be realized because of a lack of owner participation. The NPRM proposed that EPA not approve adjustments which were

[1] EPA-460/3-78-001, March 1978, Colorado Motor Vehicle Emission Inspection Pilot Program.

estimated by the manufacturer to cost more than 20 dollars. EPA determined the 20-dollar amount to be reasonable based on some manufacturers' cost information submitted to EPA in conjunction with the submittal of voluntary altitude performance adjustments under the guidelines of OMSAPC Advisory Circular No. 80, *Altitude Performance Adjustments for Vehicles In Use.* The preamble to the NPRM specifically solicited comments and pertinent information as to the appropriateness of a cost restriction, and to the amount of the restriction.

Information received in response to the NPRM indicates that a large number of manufacturers are unable to recommend altitude adjustment maintenance that could be performed for no more than 20 dollars. Based upon the information submitted in response to the NPRM, EPA is convinced that a 20-dollar maximum cost requirement is not realistic in many cases.

Due to the variety and complexity of vehicles and emission control systems, and the impact of the parameter adjustment regulations, cost estimates provided by manufacturers vary widely but are generally less than 100 dollars. Cost ranging from 20 dollars to 100 dollars for repairs that should improve emissions fuel economy, and driveability are not unreasonable. Therefore, the EPA believes it is reasonable to delete the cost limitation.

EPA encourages the manufacturer submitting altitude performance adjustment instructions to do so with the intent which these regulations are written: to provide the simple and inexpensive adjustments which are consistent with good engineering practice and which maintain adequate emission control and vehicle performance for vehicles and engines operated at altitudes other than the one for which they were originally designed.

The proposed regulations had exempted manufacturers from submitting altitude performance adjustment instructions for vehicles equipped with systems or devices which compensate (in full or in part) the fuel metering system for changes in air density. A provision of this exemption was that altitude performance adjustment instructions would still be required for partially compensating systems if further emission reductions could be obtained by adjusting the vehicle at a cost of 20 dollars or less. The deletion of the cost limitation in this final rulemaking has also resulted in the deletion of the provision requiring adjustment instructions for partially compensated systems provided the adjustments could be performed for less than 20 dollars.

Impact of Parameter Adjustment Regulations on Compliance With These Regulations

Regulations are effective for light-duty vehicles (LDV's) and light-duty trucks (LDT's) beginning in the 1981 model year, and for motorcycles beginning in the 1980 model year, that allow EPA to adjust certain vehicle parameters within the limits of their adjustability prior to testing. These regulations are commonly referred to as the parameter adjustment regulations. The regulations have the intended effect of inducing designs that have no or limited adjustability which would jeopardize vehicle emission performance.

The parameter adjustment regulations for the 1981 and later model year LDV and LDT are applicable to idle mixture and choke adjustments. The scope of the regulations is enlarged for the 1982 and later model years to also include ignition timing. The inaccessability of these parameters is deemed to be acceptable if adjustments cost more than 20 dollars and take more than one-half hour to perform. The parameter adjustment regulations for motorcycles began with the 1980 model year and are applicable to the idle and fuel system mixture parameters and the ignition timing parameter. The motorcycle regulations do not contain any criteria for determining adequate inaccessibility.

Several manufacturers noted that the adjustments governed by the parameter adjustment regulations would be the ones most likely to be used to make the simple, inexpensive adjustments anticipated by the high-altitude performance adjustment regulations. The NPRM for this regulation had not addressed this situation because the rule as proposed contained a 20-dollar cost limitation on high-altitude performance adjustments. This would have effectively made it impossible to render parameters accessible without exceeding both the cost limitations of the performance adjustment proposal and the parameter adjustment limitation. The elimination of the cost maximum for this rule makes it possible to render parameters accessible in order to perform altitude adjustments. Manufacturers may now include idle mixture, choke adjustment, and ignition timing as part of their altitude adjustment instructions, albeit at a cost in excess of 20 dollars to the customer and requiring more than one-half hour to perform. Therefore, EPA has taken steps in this final rule to avoid possible maladjustment problems occurring on in-use vehicles once high-altitude adjustments are made. The final rule requires that manufacturers either include in the altitude performance instructions further instructions on how to restore parameters to their inaccessible state when the manufacturer believes it is reasonable, or to include a statement on the label required in § 86.1606 that the adjustment of accessible parameters to other than manufacturer-recommended values may be considered a violation of Federal law.

Application to Heavy-Duty Diesel Engines

The provisions of the proposed regulations, in compliance with the requirements of section 215, applied equally to light-duty vehicles, light-duty trucks, heavy-duty engines, and motorcycles. Several manufacturers of heavy-duty diesel engines commented that it would be technically impossible to develop altitude performance adjustments for high altitude which would reduce emissions and also comply with the proposed requirement (§ 86.1004(a)(4)) prohibiting adjustments which would result in a customer-perceived reduction in vehicle performance.

In the case of a gasoline-fueled engine calibrated for low-altitude use but operated at high altitude, the reduced air density at high altitude could cause the engine to operate at such an overly rich mixture that vehicle performance and fuel economy would decrease. Readjusting the mixture at high altitude would correct this overly rich condition and improve performance and fuel economy. Diesel engines, however, when calibrated for low-altitude use are calibrated to such a lean mixture that it is unlikely the engine could be operated at an altitude high enough to cause the mixture to become overly rich. Therefore, a high-altitude performance adjustment to a typical diesel engine which reduced fuel flow (i.e., a leaner A/F ratio) would result in a loss in power. Thus, although diesel engine performance tends to decrease with increases in altitude, typical adjustments to improve emission performance at the higher altitude will tend to further decrease performance.

Due to these characteristics of the heavy-duty diesel engine, the fuel delivery rate of a low-altitude calibration can be reduced for high-altitude operation to achieve reduced emissions, but the vehicle will often realize a noticeable decrease in performance. As a result of these considerations, heavy-duty diesel engines have been exempted from the vehicle performance requirement.

However, it would be contrary to the intent of section 215 and a disservice to the public to exempt heavy-duty diesel engine manufacturers from providing performance adjustments to the customer who wished to decrease fuel consumption or reduce emissions (particularly smoke) and who was willing to accept the peformance penalty. Manufacturers of heavy-duty diesel engines are required to submit to the Administrator altitude performance adjustment instructions.

Some manufacturers of heavy-duty diesel engines have described high-altitude maintenance instructions designed to avoid elevated engine operating temperatures because of rich mixtures and the resultant excess fuel continuing to burn in the exhaust manifold. The manufacturer's recommended altitude limit is not based on emissions or vehicle performance, but rather it is based on the mixture ratio the engine can sustain for prolonged periods without risk of damage from elevated temperatures. The reduction in fuel flow described in these high-altitude fuel derate instructions is similar in intent to the altitude adjustment instructions which these regulations require. Because these similar instructions are already available for some engines, requiring altitude performance adjustment instructions from heavy-duty diesel engine manufacturers does not place an excessive burden on this segment of the industry.

Some heavy-duty engine manufacturers commented that turbocharged heavy-duty diesel engines should be specifically excluded from this rulemaking. Turbocharged engines are capable of maintaining the same manifold pressure at high altitude as at low altitude, and are therefore unaffected by high-altitude operation. The compensation for air density available to the turbocharged engine meets the requirements of § 86.1063(b) (§ 86.1003(6)(2) of the NPRM) which exempts vehicles which compensate in full or in part for air density changes. Therefore, the manufacturer of a turbocharged engine is not required to submit altitude performance adjustments instructions for these vehicles.

Applicability to Previous Model Years

Section 215(b)(1) of the Clean Air Act of 1977 requires altitude performance instructions for each class or category of vehicles or engines to which this subchapter (Title II) applies. Thus this regulation applies to:

—1968 and later model year light-duty vehicles and light-duty trucks,

—1970 and later model year heavy-duty engines built after December 31, 1969, and

—1978 and later model year motorcycles built after December 31, 1977.

EPA received extensive comments on this subject. Some commenters believed that regulations which applied retroactively exceeded the authority of EPA, pointing out that section 202(a)(1) of the Act gives authority to the Administrator to promulgate regulations which are applicable to new motor vehicles and new motor vehicle engines; that is, vehicles and engines which are new after the regulations are promulgated. Other commenters accepted the wording of section 215 to allow the regulations to apply to previous model years, but commented that they should only be applicable to in-use vehicles which had not exceeded their statutory useful life (i.e., 5 years or 50,000 miles).

Section 215(b)(1) requires instructions for "each class or category of vehicles or engines to which this subchapter [Title II] applies." This language requires that instructions be provided for all model years in which a given class or category of vehicle or engines was regulated under Title II. Title II does not cease to apply once a vehicle reaches the end of its useful life. For example, the Section 203 prohibition against tampering does not distinguish between vehicles which have and have not reached the end of their useful lives.

The legislative history also supports the conclusion that Section 215 applies to all vehicles regulated under the Clean Air Act. For example, Congresswoman Schroeder, a sponsor of this provision, indicated that the provision was intended to apply to pre-1970 motor vehicles—vehicles that were past their statutory useful lives at the time the provision was being considered by Congress. Also, while there was an attempt to limit the applicability of Section 215 so that it would not apply to vehicles manufactured in model years after the date of enactment, no effort was made to limit the applicability to vehicles that had not reached the end of their useful lives.

EPA is required to promulgate regulations applicable to all model years of vehicles and engines regulated by Title II of the Clean Air Act. It is not within the scope of EPA's authority to limit the applicability of these regulations to a reduced number of model years.

Cost Considerations

The extensive and expensive development programs which were outlined by some commenters as being necessary to comply with the applicability to several model years indicate a misunderstanding of what is required by section 215 and of how the proposed regulations were intended to implement section 215. The simple and inexpensive nature of the intended compliance procedure cannot be overemphasized. EPA envisions and encourages that a minimum use of developmental and confirmatory testing and a maximum use of technical evaluations, consistent with good engineering practice, be performed to comply with the proposed standards. Emission testing is not required to demonstrate compliance with these regulations. Emission trends resulting from a particular adjustment may be derived from testing, or may be derived from an enginieering analysis of the adjustment. EPA believes that such trends may be applicable to several model years and several vehicles within a model year, and may be a sufficient demonstration of compliance with these regulations.

Several potential reductions are possible to the workload assumed by some commenters as necessary to demonstrate compliance with these regulations. The regulations governing acceptable increases in pollutant emissions as a result of altitude performance adjustments are made by comparing the increases with the emission standard appropriate to that model year, class, and category of vehicle or engine to which the performance adjustment applies. Thus, the emission performance of a vehicle or engine as the result of an altitude performance adjustment will only be evaluated as an approval criterion if there is an emission standard applicable to the particular class and model year of vehicle or engine in question. For example, light-duty vehicles, light-duty trucks, and heavy-duty engines manufactured prior to the 1973 model year, and all model year motorcycles, are exempt from meeting a NO_x criteria because none are applicable to these vehicles and engines.

Fuel Economy

An important consideration in the development of this regulation was to ensure that altitude performance adjustments did not result in a customer-perceived penalty to vehicle performance or fuel economy. The proposed regulations contained a provision which required the Administrator to disapprove a performance adjustment if it resulted in a decrease in fuel economy.

EPA has reviewed the comments to the NPRM and the altitude adjustment instruction submitted voluntarily in response to OMSAPC Advisory Circular No. 80. Based upon this review, EPA has concluded that a decrease in fuel economy is unlikely to result from any directionally correct altitude performance adjustment (e.g., a leaning of the air/fuel mixture) for a vehicle moving from low to high altitude. Thus, the requirement that an altitude adjustment not cause a decrease in fuel economy has little positive value for a vehicle moving from low altitude to high altitude. Conversely, EPA's review of the effects of altitude performance adjustments for vehicles moving from high altitude to low altitude (e.g., a richening of the air/fuel mixture) has indicated that a fuel economy decrease may result, contrary to the proposed regulation. The potential decrease in fuel economy in moving from high to low altitude, however, is expected to be counterbalanced by an improvement in vehicle performance.

EPA has concluded that the proposed fuel economy performance criterion would have little effect on public acceptance of the altitude performance adjustments, and would potentially burden the industry with an unnecessary compliance requirement. Further, the proposed regulations potentially conflict with the effects on fuel economy of performance adjustments for vehicles moving from high to low altitude. The fuel economy acceptance criterion has been deleted from this rulemaking.

Acceptable Performance Adjustment Specifications

In the NPRM, EPA took the position that readjustments which do not change parameter specifications from original specifications, and which are part of normal scheduled maintenance, will not be considered as altitude performance adjustments. EPA adopted this position for two reasons. First, EPA has concluded that the large number of maladjusted vehicles found at high altitude (95 percent) are the result of owners deliberately adjusting them to an other-than-recommended specification in order to improve a driver-perceived performance problem. It is assumed that as a first step in improving a performance the vehicle owner would have the vehicle adjusted to the manufacturer's specifications. Thus, it is also assumed that a manufacturer's tuneup specifications for one altitude may be inadequate in terms of emission control or vehicle performance at another altitude. These regulations are intended to require the development of unique altitude performance adjustment specifications which will improve vehicle emission performance at an altitude other than that for which it was originally certified. Second, the Congressional intent of section 215 was to allow manufacturers to recommend, and service facilities to perform, altitude performance adjustments to an other-than-certified specification without the jeopardy of being in violation of the tampering provisions of section 203(a). A manufacturer's normally scheduled maintenance tuneup specifications are neither specifically intended to improve a vehicle's emission control performance at an altitude other than that for which it was certified, nor can they be considered as tampering. Tuneup specifications which are part of regularly scheduled maintenance, therefore, do not of themselves meet the intent of these regulations, nor do they require any protection from being considered tampering.

Several comments to the NPRM were received which indicated that the proposed requirement had been interpreted to prohibit a manufacturer from including normal scheduled tuneup specifications in addition to the unique altitude performance adjustments which are required. It would be counter-productive for EPA to assume such a position, and manufacturers are encouraged to include normal scheduled maintenance specifications where appropriate in conjunction with the altitude performance adjustments required by this rulemaking. However, EPA has retained in this rulemaking the position that normal scheduled tuneup specifications do not of themselves satisfy the requirements of this rulemaking. Manufacturers are required to provide altitude performance adjustments which are uniquely intended to improve vehicle emission control performance. The adjustments may be made to the same parameter as are included in a normal tuneup, but the parameters should be adjusted to specifications which are uniquely intended to improve vehicle emission performance at altitudes other than that for which the vehicle was originally designed.

Application to Motorcycles

Comments received in response to the NPRM pointed out that some situations existed unique to motorcycles. The NPRM included motorcycles in the requirement that the vehicle emission control update label be placed in the engine compartment of the vehicle. This requirement is not directly applicable to motorcycles because they do not have an engine compartment. The requirement has been changed to be consistent with the motorcycle tuneup specifications label required under § 86.413–78. The emission control update label must now be readily accessible and may be divided into parts.

Motorcycle manufacturers were concerned that they would be unable to comply with the emission restrictions as proposed. Their principal concern was that currently there are no high-altitude emission test facilities for motorcycles and that emission test data would not be available. The commenters incorrectly assumed that presenting emission test data was the only means to demonstrate emission compliance. Manufacturers of all classes of vehicles are reminded that EPA encourages them to demonstrate compliance using engineering analyses, consistent with good engineering practice, to demonstrate compliance.

Interaction With 1982/1983 High Altitude Emission Standards

EPA has proposed high-altitude emission standards for new 1982 and 1983 model year light-duty vehicles and light-duty trucks sold at high altitude. It is expected that this proposal will become final in the near future. The 1982/1983 high altitude emission standards regulation will require that all vehicles certified at low altitude be capable of being modified to a vehicle configuration which complies with meeting emission standards at high-altitude. Manufacturers are not required to provide high-altitude performance adjustment instructions for vehicles already modified to configurations which complies with the high-altitude emission standards. It should be noted, however, that manufacturers will be required to make available low-altitude performance adjustment instructions for vehicles modified to meet high-altitude emission standards.

For the 1982 and 1983 model years manufacturers have two options in developing altitude performance adjustments for in-use vehicles moving from low altitude to high altitude and vice versa. Manufacturers may offer as adjustment instructions that the vehicle be modified to the same configuration as was certified for that altitude (e.g., a low-altitude vehicle would be modified to the certified high-altitude configuration. Such instructions would have the advantage of ensuring that in-use vehicles would meet the appropriate emission standards. However, vehicles are not required to be modified to a certified condition after they have been sold, and modifications to a certified configuration may be relatively expensive due to the necessity of

meeting a specific emission standard. EPA is concerned that expensive modifications may discourage the owner of an in-use vehicle from having the adjustments performed. The alternative is that a manufacturer may develop separate high-altitude performance adjustments in accordance with this regulation, and which would not have to meet any specific emission standard. EPA believes that high altitude performance adjustments would be relatively less expensive than the modifications necessary to meet the high altitude emission standards. EPA encourages manufacturers to provide altitude performance adjustment instructions for in-use vehicles as an alternative to the modifications necessary to meet the high-altitude emission standards if the modifications are potentially so expensive that the public is unlikely to voluntarily have them performed.

Reporting and Recordkeeping Requirements

This regulation will require manufacturers to submit to EPA altitude performance adjustment instructions for all motor vehicles and motor vehicle engines to which Title II of the Clean Air Act applies. The intent of this regulation is that these instructions should be as simple and as inexpensive as possible to perform, and therefore relatively brief. It is also expected that instructions may be applicable to more than one model and model year of similar vehicles.

The initial submission of instructions for all of the previous model years affected by this regulation, which are to be made within one year of the date of publication, will be relatively large. The large volume of submissions, however, will be a one-time occurrence, and all further submissions will be for each current model year. EPA is unable to estimate the size of the single submissions for previous model years because of the combining of instructions across models and model years. These submissions are not expected to be excessively large, however. For example, the altitude performance adjustment instructions submitted by one manufacturer under the authority of Advisory Circular No. 80 includes light-duty trucks and light-duty vehicles for the 1976 through 1979 model years, and yet is only 10 pages. By comparison, the application for certification by the same manufacturer for the single 1981 model year is approximately 1,000 pages.

After the initial submission of instructions, the reporting burden for each model year is expected to be minor, and should not place a significant additional reporting burden on the industry.

The cost to the Federal Government to handle and process the industry's submissions is similarly larger for the first year this regulation is in effect than for subsequent years. The initial effort during the first year following publication of this regulation should not exceed two person-years of effort. For subsequent years (because all previous model years should be caught up), effort should not exceed one person-year.

Regulatory Analysis

The Administrator has determined that this is a "significant routine" regulation. The impact of the regulation will be significant, in that Agency resources will be required to develop and implement the regulation and because an air quality improvement may be expected as a result of the regulation. However, because of the limited number of vehicles that will be affected by the regulations, the limited geographical area in which the primary impact of the regulations will be felt, and the failure of the regulation to trigger any of the criteria governing the preparation of a regulatory analysis, the proposal is not a "major" regulation.

This regulation does not require preparation of an Environmental Impact Study (EIS) under the National Environmental Policy Act, although the environmental effects of the regulation will be considered during the rulemaking. Similarly, an Economic Impact Assessment (EIA) is not required since the proposal does not meet the criteria of Section 317(a) of the Act, and the action does not meet the criteria requiring preparation of a Regulatory Analysis.

Under Section 307(b)(1) of the Clean Air Act, judicial review of this action is available *only* by the filing of a petition for review in the United States Court of Appeals for the appropriate circuit on or before December 8, 1980. Under section 307(b)(2) of the Clean Air Act, the requirements which are the subject of today's notice may not be challenged later in judicial proceedings brought by EPA to enforce these requirements.

Dated: October 2, 1980.

Douglas M. Costle,

Administrator.

Accordingly, the final rule reads as follows by adding a new Subpart Q to 40 CFR Part 86.

Subpart Q—Regulations for Altitude Performance Adjustments for New and In-Use Motor Vehicles and Engines

Secs.

86.1601 General applicability.
86.1602 Definitions.
86.1603 General requirements.
86.1604 Conditions for disapproval.
86.1605 Information to be submitted.
86.1606 Labeling.

Subpart Q—Regulations for Altitude Performance Adjustments for New and In-Use Motor Vehicles and Engines

§ 86.1601 General applicability.

This subpart applies to manufacturers of motor vehicles and motor vehicle engines (hereafter referred to as vehicles) which are subject to the requirements of Title II of the Clean Air Act. This subpart applies to the following vehicles:

(a) 1968 and later model year light-duty vehicles and light-duty trucks.

(b) 1970 and later model year heavy-duty engines built after December 31, 1969.

(c) 1978 and later model year motorcycles built after December 31, 1977.

§ 86.1602 Definitions.

The definitions provided in Subpart A also apply in this subpart. Additional definitions that apply in this subpart are as follow:

"Altitude performance adjustments" are adjustments or modifications made to vehicle, engine, or emission control functions in order to improve emission control performance at altitudes other than those for which the vehicles were designed.

"Low altitude" means any elevation less than or equal to 1,219 meters (4,000 feet).

"Manufacturer parts" are parts produced or sold by the manufacturer of the motor vehicle or motor vehicle engine.

§ 86.1603 General requirements.

(a) Manufacturers of vehicles specified in § 86.1601 shall submit to the Administrator for approval the following altitude performance adjustment instructions.

(1) Low-altitude adjustment instructions for vehicles certified to meet the appropriate high-altitude emission standards.

(2) High-altitude adjustment instructions for vehicles certified to meet the appropriate low-altitude emission standards.

(b) Manufacturers are not required to submit altitude adjustment instructions for vehicles equipped with systems or devices that compensate (in full or in part) the engine fuel metering system for air density changes. Manufacturers claiming this exemption must submit to the Administrator for approval a notification of the claim specifying the affected vehicles. The notification must

also describe the compensating system used.

(c) Manufacturers may request the Administrator to waive the application of this regulation for vehicles which potentially may never be operated at an altitude other than that for which they were designed (such as vehicles which are not offered for sale within the continental United States).

(d) Manufacturers shall meet the requirements of paragraph (a), according to the following schedule:

(1) Altitude adjustment instructions for all 1980 and earlier model year vehicles or engines shall be submitted to the Administrator within one (1) year of the effective date of this regulation.

(2) Altitude adjustment instructions for 1982 and later model year vehicles or engines shall be submitted to the Administrator within 30 days of the issuance of the certificate of conformity for those vehicles or engines. For vehicles or engines certified for the 1981 model year before the publication of this regulation, altitude adjustment instructions shall be submitted within 90 days of the publication of this regulation.

(e) Failure to submit altitude performance adjustment instructions in accordance with this section is a violation of Section 203(a)(3) of the Clean Air Act and may result in penalties as specified in Section 205 of the Clean Air Act. The Administrator may grant extensions of the schedule in paragraph (c) if the manufacturer submits a written request to the Administrator specifying the reasons for the need for the extension. Requests for an extension must be received by EPA at least 5 working days prior to the submittal date contained in paragraph (d).

(f) The adjustment instructions (including labels) that the Administrator approves under this subpart shall be made available by the manufacturer at no cost to service outlets and the general public. EPA encourages manufacturers to notify vehicle owners in high-altitude areas of the availability of high-altitude adjustments.

(g) If altitude adjustments are performed according to the instructions approved by the Administrator, they will not be treated as violations of the tampering provisions of Section 203(a) of the Act except as described below:

§ 86.1604 Conditions for disapproval.

(a) The Administrator shall not approve altitude performance adjustments that will:

(1) Cause any regulated pollutant emission level to increase if the emission level exceeded the appropriate emission standard before adjustment was made.

(2) Cause any regulated pollutant emission level to exceed the appropriate emission standard if the emission level did not exceed the emission standard before the adjustment was made.

(3) For light-duty vehicles, light-duty trucks, motorcycles, heavy-duty gasoline-fueled engines, cause any reduction of vehicle performance (as evaluated by the manufacturer) such that vehicle drivers will likely complain.

(4) Be of such technical complexity or require such complex, expensive, or exclusive equipment that a competent mechanic in an average service establishment cannot perform the adjustments correctly. Adjustment procedures should not require knowledge or training beyond that required to perform normal engine maintenance. All required equipment must be available to any service establishment at competitive cost.

(5) Require the use of manufacturer parts, unless they are necessary to ensure emission control performance and unless the Administrator grants a waiver under Section 207(c)(3)(B) of the Act.

(6) Removes or defeats the parameter adjustment controls for the parameters listed in paragraphs 86.081–22(e)(1)(i) and 86.082–22(e)(1)(i) for light-duty vehicles and light-duty trucks, and paragraph 86.428–80(d) for motorcycles unless:

(i) The manufacturer determines that it is reasonable to restore the parameter adjustment control in use and provides appropriate instruction as part of the high-altitude performance adjustment instructions, or

(ii) The manufacturer determines that is is not reasonable to restore the parameter adjustment control in use and alternatively includes on the label required in section 86.1606 a statement to the effect that the labeled vehicle can be adjusted but that adjustment to other than manufacturer specification may be considered violation of Federal law.

(b) If the Administrator determines that the altitude performance adjustment instructions cannot be approved, the Administrator shall notify the manufacturer in writing of the disapproval. This notification shall explain the reasons for the disapproval.

(1) Within 20 working days of the date of a notification of disapproval, the manufacturer may file a written appeal to the Administrator. The Administrator may allow additional oral or written testimony prior to rendering a final decision.

(2) If the manufacturer files no appeal with the Administrator, the disapproval becomes final.

(3) Within 30 days following the Administrator's final decision of disapproval, the manufacturer must submit new altitude performance adjustment instructions applying to all of the vehicles for which the disapproved instructions applied. If these new instructions are not submitted within 30 days, EPA may take action under Sections 203(a)(3) and 205 of the Act. If the new altitude performance adjustment instructions are disapproved by the Administrator, the manufacturer may follow the appeal procedures under paragraphs (b)(1) and (b)(2) of this section.

(ii) If the Administrator makes a final decision to disapprove the new instructions, EPA may take action under Sections 203(a)(3) and 205 of the Act.

§ 86.1605 Information to be submitted.

(a) Manufacturers shall submit to the Administrator the text of the altitude performance adjustment instructions to be provided to vehicle owners and service establishments. Each set of altitude performance adjustment instructions must set forth the adjustment procedure (including the installation of the label required by § 86.1606) to be followed and identify the vehicles for which the instructions are applicable. At a minimum, each set of instructions shall identify the vehicle applicability by manufacturer, car line, model year, engine displacement, engine family, and exhaust emission control systems. Manufacturers may specify vehicle applicability in greater detail if necessary, but such specifications must be identifiable to the public and the service industry through vehicle marking or codes.

(b) The manufacturer shall submit to the Administrator the following information about the adjustments:

(1) Specifications of changes in calibrations of any component, including the original and new calibration values or curves;

(2) Descriptions of component additions, including a full description of the new components along with the configurations (sketch or drawing), calibration values, and part numbers;

(3) Descriptions of component replacements, including all items in paragraph (2), above, for the new parts. Also, a description of the differences between the original component and the new component with respect to design, calibration, and function;

(4) Descriptions of any special tools necessary to perform the adjustments.

(c) The manufacturer shall submit to the Administrator the following evaluations of the adjustments:

(1) A statement that the conditions of § 86.1604 (a)(1) and (a)(2) are not caused by the adjustment, and supporting information for this statement consisting of technical evaluations (consistent with good engineering practice) or emission test data.

(2) A statement that vehicle performance is generally unchanged or improved as result of the adjustments, and supporting information for this statement consisting of technical evaluations or driver evaluations.

(3) Information that shows compliance with Section 202(a)(4)(A) of the Act (which prohibits vehicles from causing unreasonable risks to public health, welfare, and safety).

(d) The manufacturer shall submit to the Administrator for approval a copy or sample of the label required by § 86.1606 and a copy of the instructions for installation of the label.

§ 86.1606 Labeling.

(a) The manufacturer shall make available to the public as part of the altitude performance adjustment instructions the labels described in this section. Instructions for installing the labels according to the requirements of this section shall be provided with each label.

(b) The label installation instructions shall indicate the following information.

(1) For light-duty vehicles, light-duty trucks, and heavy-duty engines, the label should be affixed in a readily visible position in the engine compartment and beside (to the extent possible) the existing label which is required under § 86.079–35.

(2) For motorcycles, the label should be affixed in a readily accessible position and beside (to the extent possible) the existing label which is required under § 86.413–78(a)(1).

(3) The instructions shall also indicate that the label should not be affixed to any equipment that can be easily detached from the vehicle.

(c) The label must be constructed such that if installed properly, it cannot be removed without destroying or defacing the label.

(d) The label shall contain the following information lettered in the English language in block letters and numerals, which must be of a color that contrasts with the background of the label:

(1) The label heading: Vehicle Emission Control Information Update;

(2) Full corporate name and trademark of the vehicle manufactuer;

(3) The statement: "This vehicle has been (adjusted) (modified) to improve emission control performance when operated at (high) (low) altitude";

(4) Information on where altitude performance adjustment instructions may be obtained or include the actual altitude performance adjustment instructions;

(5) The new tuneup specifications (if changed from the original label specifications) at the applicable altitude.

(Secs. 215 and 301, Clean Air Act, as amended, (42 USC §§ 7550 and 7601))

[FR Doc. 80–31276 Filed 10–7–80; 8:45 am]

BILLING CODE 6560–26–M